

### Compact Fluorescent Light Bulbs (CFL)

CFLs are miniature versions of full-sized fluorescent light bulbs. They screw into standard lamp sockets and are available in a variety of styles or shapes. Some have two, four, or six tubes. Older models and specialty models have separate tubes and ballasts. Most common today are the circular or spiral-shaped tubes. A CFL is a very energy efficient lamp and has become popular. A CFL bulb generally contains an average of 5 mg of **Mercury** (about one-fifth of that found in the average watch battery, and less than 1/100th of the mercury found in an amalgam dental filling). The net benefit of using the more energy efficient lamp is positive, and this is especially true if the mercury in the fluorescent lamp is kept out of the waste stream when the lamp expires.

### Handling, Recycling, and Disposal of CFLs

The mercury in compact fluorescent bulbs poses no threat while in the bulb, but if a CFL breaks the mercury can be released into the environment. Proper handling and a prudent recycling effort will help reduce the effects of mercury in the environment.

**Proper handling** - CFLs are made of glass and can break if dropped or roughly handled. Be careful when removing the bulb from its packaging, installing it, or replacing it. Always screw and unscrew the lamp by its base (not the glass), and never forcefully twist the CFL into a light socket.



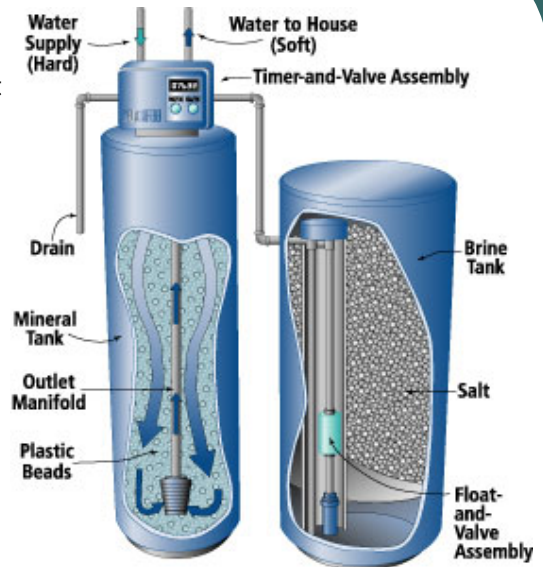
If a CFL breaks in your home, follow EPA's online clean-up recommendations (<http://www.epa.gov/mercury/spills/index.htm#fluorescent>) or call EPA Region IX: (866)-EPA-WEST or (415) 947-8000.

**Recycling** - The technology exists to separate the glass, phosphor powder, mercury and other materials in CFLs for recycling, but there is not yet a convenient system for bulb collection. However, there are a few recycling programs and in June 2008 **The Home Depot** launched a national in-store CFL bulb recycling program at all U.S. The Home Depot locations. Disposing of a CFL should be the last resort. Businesses should contact the **Nevada Small Business Development Center** (<http://envnv.org/>) for provisions based on their generator status.

**Disposal** - Household CFL bulbs may legally be disposed of with regular trash, as household hazardous waste. Again, businesses should contact the **Nevada Small Business Development Center** (<http://envnv.org/>) for provisions based on their generator status. The City of Boulder City uses All Lamp Recycling ([www.alllamprecycling.com](http://www.alllamprecycling.com)) for disposal of fluorescent light bulbs from City Buildings. Boulder City does not promote any business, rather encourages residents and business owners to shop around for disposal service.

# WATER SOFTENERS

Because our main water supply comes from the mineral-laden Colorado River, Southern Nevada's water is very hard. Removing the calcium and magnesium softens the water, but is not a necessity to protect your health. Please take the time to review the City's Consumer Confidence Report at <http://www.bcnv.org/conservation/Water.asp#water%20report>. Some people prefer softened water for bathing, cleaning and washing clothes. Softeners also have negative environmental impact. They add sodium to waste water that becomes a serious contaminant and a major recycling problem for municipal water departments. In some areas, they are actually banned or their use is severely regulated. Please take the time to review Consumer Reports® ratings. You can request a copy through SNWA at [www.snwa.com/cfml/wq\\_interest\\_form/wq\\_interest\\_form.cfml](http://www.snwa.com/cfml/wq_interest_form/wq_interest_form.cfml).



## Softener processes

**Ion exchange:** These systems use sodium (or potassium) ions to coat an exchange medium in the softener. As hard water passes through the unit, the water "trades" its calcium and magnesium for the sodium or potassium.

**Water conditioners:** These are marketed as salt-free alternatives to softeners. You should consider the validity of these claims. Neither the [American Water Works Association](#) nor the [Water Quality Association](#) endorse these technologies.

## Cost

Retail prices for home water softeners may range from \$400 to several thousand dollars, depending upon the size and type of unit. The cost of salt to replenish the brine solution is approximately \$5 to \$7, depending on the form purchased.

## Water Softening Systems

Advantages	Disadvantages	Alternatives
Improved "feel" of water on skin when bathing	Potential health risks from sodium intake	Laundry detergents that include water-softening agents
Cleaner, softer clothes	Harm to houseplants due to elevated salt content	Dishwasher rinse aids
Longer life of appliances	Overload or reduced effectiveness of septic systems	Bath salts
Reduced use of household cleaning products	Degrade water quality returned to the City for reclamation	Lime- or mineral-dissolving household cleaners
Reduction of water spots and deposits		